

WHAT IS CLAIMED IS:

1. A driving device for use with a ultrasonic actuator, comprising:

a position detector which detects a present position of a movable member driven by an ultrasonic actuator;

a calculator which calculates a control target position of the movable member;

a driver which generates such a drive voltage to drive the ultrasonic actuator in a specified resonant state; and

a controller which controls an operative state of the movable member by adjusting at least one of physical quantities specifying the drive voltage as a maneuverable physical quantity in accordance with a difference between the present position and the control target position so that the movable member pursues the control target position.

2. A driving device according to claim 1, wherein the maneuverable physical quantity is a voltage value of the drive voltage or a frequency of the drive voltage.

3. A driving device according to claim 1, wherein the drive voltage is a rectangular wave and the maneuverable physical quantity is a duty ratio of the drive voltage.

4. A driving device according to claim 1, wherein the adjustment of the physical quantity is performed based on an

adjustment value table.

5. A driving device according to claim 4, wherein the adjustment value table is stored in advance.

6. A driving device according to claim 1, further comprising a temperature detector which detects an ambient temperature for correction of the drive voltage.

7. A driving method for driving an ultrasonic actuator, comprising the steps:

detecting a present position of a movable member driven by an ultrasonic actuator;

calculating a control target position of the movable member;

generating such a drive voltage to drive the ultrasonic actuator in a specified resonant state; and

controlling an operative state of the movable member by adjusting at least one of physical quantities specifying the drive voltage as a maneuverable physical quantity in accordance with a difference between the present position and the control target position so that the movable member pursues the control target position.

8. A driving method according to claim 7, wherein the maneuverable physical quantity is a voltage value of the drive

voltage or a frequency of the drive voltage.

9. A driving method according to claim 7, wherein the drive voltage is a rectangular wave and the maneuverable physical quantity is a duty ratio of the drive voltage.

10. A driving method according to claim 7, wherein the adjustment of the physical quantity is performed based on an adjustment value table.

11. A driving method according to claim 10, wherein the adjustment value table is stored in advance.

12. A driving method according to claim 7, further comprising the step of detecting an ambient temperature for correction of the drive voltage.

13. A camera comprising:

a camera shake correction lens provided in a photographing optical system of the camera;

an ultrasonic actuator which drives the camera shake correction lens;

a position detector which detects a present position of the camera shake correction lens;

a calculator which calculates a control target position of the camera shake correction lens;

a driver which generates such a drive voltage to drive the ultrasonic actuator in a specified resonant state; and

a controller which controls an operative state of the camera shake correction lens by adjusting at least one of physical quantities specifying the drive voltage as a maneuverable physical quantity in accordance with a difference between the present position and the control target position so that the camera shake correction lens pursues the control target position.

14. A camera according to claim 13, wherein the maneuverable physical quantity is a voltage value of the drive voltage or a frequency of the drive voltage.

15. A camera according to claim 13, wherein the drive voltage is a rectangular wave and the maneuverable physical quantity is a duty ratio of the drive voltage.

16. A camera according to claim 13, wherein the adjustment of the physical quantity is performed based on an adjustment value table.

17. A camera according to claim 16, wherein the adjustment value table is stored in advance.

18. A camera according to claim 13, further comprising

a temperature detector which detects an ambient temperature for correction of the drive voltage.